

### REMARKS

Applicants have amended claims 1 and 2 and added new claims 30-37 to more particularly point out and distinctly claim the subject matter which they regard as their invention. Support for the amendments can be found in the specification, page 3, lines 3-8; page 5, lines 11-14; and page 7, lines 16-20.<sup>1</sup> No new matter has been introduced.

Upon entry of the above amendments, claims 1-37 will be pending and under examination. In response to the final office action dated February 14, 2006, Applicants present the following remarks.

#### Rejections under 35 U.S.C. § 102

The Examiner rejects claims 1-6 as being anticipated by Gorsek, U.S. Patent 6,655,629 (the '629 patent) and rejects claims 1-6 and 16 as being anticipated by Anderson et al., U.S. Patent 5,846,569 (the '569 patent). Claims 1 and 2, the two independent claims, will be discussed first.

Claim 1, as amended, covers a composition containing vitamin B3, quercetin, and caffeine. Claim 2, as amended, covers a composition containing vitamin C, quercetin, and caffeine. In both compositions, the ratio between quercetin and caffeine ranges from 1:75 to 3:1.

The '629 patent discloses a composition for preventing and treating macular degeneration. The composition contains, among others, vitamin B3, vitamin C, quercetin, and a green tea extract. This reference is silent on the ratio between quercetin and a green tea extract.<sup>2</sup>

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<sup>1</sup> The passage at page 3, lines 3-8 describes that a composition contains, among other, 20-2000 mg of quercetin and 50-1500 mg of caffeine. The ratio between quercetin and caffeine in this composition ranges from 20:1500 to 2000:50, i.e., from 1:75 to 40:1. The passages at page 5, lines 11-14 and page 7, lines 16-20 describe two examples, in both of which the ratio between quercetin and caffeine is 1:1. Based on the holding in *In re Wertheim* 191 USPQ 90 (as discussed below), the above descriptions support the new limitations recited in claims 1, 2, and 30-37, i.e., the ratio between quercetin and caffeine ranges from 1:75 to 3:1, 1:75 to 2:1, or 1:75 to 1:1. Of note, the ratios of 3:1 and 2:1 are much closer to the ratio of 1:1 of the two exemplary compositions than 40:1, which is the upper limit of the broadest range acceptable to practice this invention (see above).

In *Wertheim*, the specification describes a range of "25%-60%" and specific examples of "36%" and "50%." The court held that a new claim limitation corresponding to "between 35% and 60%," not only "between 36% and 60%," satisfied the written description requirement. Clearly, the court took the position that the value "35%" is acceptable even though it is not explicitly mentioned in the specification.

<sup>2</sup> The table shown at columns 3 and 4 lists a composition containing both quercetin and a green tea extract. It only provides the weight of quercetin, but not the weight of the green tea extract.

In other words, it does not teach the ratio between quercetin and caffeine, if any caffeine is present in the green tea extract. Thus, the '629 patent does not anticipate claims 1 and 2, both of which require that the ratio between quercetin range from 1:75 to 3:1.

The '569 patent discloses a dietary composition for improving metabolic function. The composition contains vitamin B3, vitamin C, quercetin, and green tea. It describes an example that contains 10 mg of quercetin and 65 mg of green tea. See column 5, lines 55-60. Green tea contains about 3% caffeine. See *Preventive Medicine* 1992, 21, 334-350 (copy enclosed herewith as "Exhibit A"). Thus, this exemplary composition contains about 2 mg (i.e.,  $65 \text{ mg} \times 3\%$ ) of caffeine. The ratio between quercetin and caffeine in this composition is therefore 5:1 (i.e., 10:2). By contrast, claims 1 and 2 both require that the ratio between quercetin ranges from 1:75 to 3:1. In other words, the ratio between quercetin and caffeine taught in the '569 patent is outside the range recited in claims 1 and 2. This reference therefore does not anticipate amended claims 1 and 2.

For the reasons set forth above, claims 3-6 and 16, dependent from either claim 1 or 2, are also not anticipated by the '629 or '569 patent.

#### Rejections under 35 U.S.C. § 103(a)

The Examiner rejects claims 1-15, 26, 27, and 29 for obviousness on three grounds. Applicants will traverse each of them below:

#### I

The Examiner rejects claims 5 and 6 as obvious over the '569 patent.

Claims 5 and 6 depend from amended claim 2. Their patentability resides at least in part in the unique range of the ratios between quercetin and caffeine as now recited in claim 2, i.e., from 1:75 to 3:1.

As discussed above, the '569 patent merely teaches a 5:1 ratio between quercetin and caffeine. It does not suggest any ratio between quercetin and caffeine that falls within the range recited in claim 2, i.e., from 1:75 to 3:1. Thus, it does not render obvious claims 5 and 6, which require that the ratio between quercetin and caffeine range from 1:75 to 3:1.

## II

The Examiner rejects claims 1-25 and 28 as obvious over Gorsek, U.S. Patent 6,649,195 (the '195 patent), in view of the '629 patent, and further in view of Rosenberg et al., U.S. Patent 6,579,544 (the '544 patent), Husz, U.S. Patent 6,277,427 (the '427 patent), Pearson et al., U.S. Patent 6,261,589 (the '589 patent), and Xiong et al., U.S. Patent 6,299,925 (the '925 patent).

Among the rejected claims, only claims 1 and 2 are independent. Applicants submit that the patentability of claims 1-25 and 28 resides at least in part in the unique range of the ratio between quercetin and caffeine recited in claims 1 and 2, i.e., from 1:75 to 3:1.

The '195 patent discloses a composition containing, among others, quercetin. It does not mention caffeine or green tea (which allegedly contains caffeine). Thus, it fails to suggest any ratio between quercetin and caffeine, let alone 1:75 to 3:1. As discussed above, the '629 also does not teach or suggest a ratio between quercetin and caffeine that falls within the range recited in claims 1 and 2, i.e., from 1:75 to 3:1.

The '544, '427, '589, and '925 patents do not cure the deficiency.

The '544 patent does not mention caffeine, green tea, or a green tea extract. Rather, it teaches a composition containing quercetin and other components.

The other three references, i.e., the '427, '589, and '925 patents, do not mention quercetin. The '427 patent discloses stimulating effect of a beverage containing, among other, caffeine. The '589 patent discloses positive psychoactive effect of a composition containing, among others, caffeine. The '925 patent describes a green tea extract formulation for maximum release and delivery of the extract.

As none of the '544, '427, '589, and '925 patents mentions both quercetin and caffeine, they, of course, do not suggest any ratio between quercetin and caffeine, let alone 1:75 to 3:1.

In view of the above remarks, Applicants submit that the six references, i.e., the '195, '629, '544, '427, '589, and '925 patents, alone or combined, do not suggest a ratio between quercetin and caffeine that falls within the range recited in amended claims 1 and 2, i.e., from 1:75 to 3:1. In other words, claims 1 and 2 are nonobvious over the six cited references. So are claims 3-25 and 28, which depend from either claim 1 or 2.

### III

The Examiner rejects claims 26, 27, and 29 for obviousness, relying on the '195 patent, in view of the '629, '544, '427, '589, and '925 patents, and further in view of the '569 patent.

Claims 26, 27, and 29 cover a method of enhancing physical performance using the composition of claim 2. Their patentability resides at least in part in the unique range of the ratio between quercetin and caffeine recited in claim 2, i.e., from 1:75 to 3:1.

As discussed above, none of the '195, '629, '544, '427, '589, '925, and '569 patents suggests a ratio between quercetin and caffeine as recited in claim 2, i.e., from 1:75 to 3:1. Thus, their combination also fails to do so. In other words, these seven references do not render obvious claims 26, 27, and 29, all dependent from claim 2.

#### New claims

New claims 30-37 each depend from claim 1 or claim 2. For the same reasons set forth above, these claims are also patentable over the cited references.

### CONCLUSION

In view of the above remarks, Applicants submit that the rejections asserted in the Office Action have been overcome and claims 1-37, as pending, define subject matter that is novel and non-obvious over the prior art. Applicants respectfully request that all of the pending claims be allowed.

Enclosed is a \$200 check for excess claim fees and a \$225 check for the Petition for Extension of Time fee.

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Respectfully submitted,

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